



QUALYS SECURITY CONFERENCE 2018

Qualys Agents and RTI's

Leveraging Vulnerability Intelligence and Cloud Agents in Vulnerability Management: Prioritizing Risk at Montana State University

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Agenda

Vulnerability Intelligence

Situation

Problems

Objectives

Technology

Results

Q&A



Vulnerability Intelligence

How it Works and How its Used

Intelligence vs. Information

Intelligence is information that has been analyzed

Intelligence provides informative insights

Collecting, processing, analyzing information

Data meets some goal or purpose

The problem is not to find something ... But to understand something

Source: Multiple



Vulnerability Intelligence

Identifies the Vulnerabilities with the greatest impact on risk.

Proactive vs reactive.

Pertains to a specific environment.

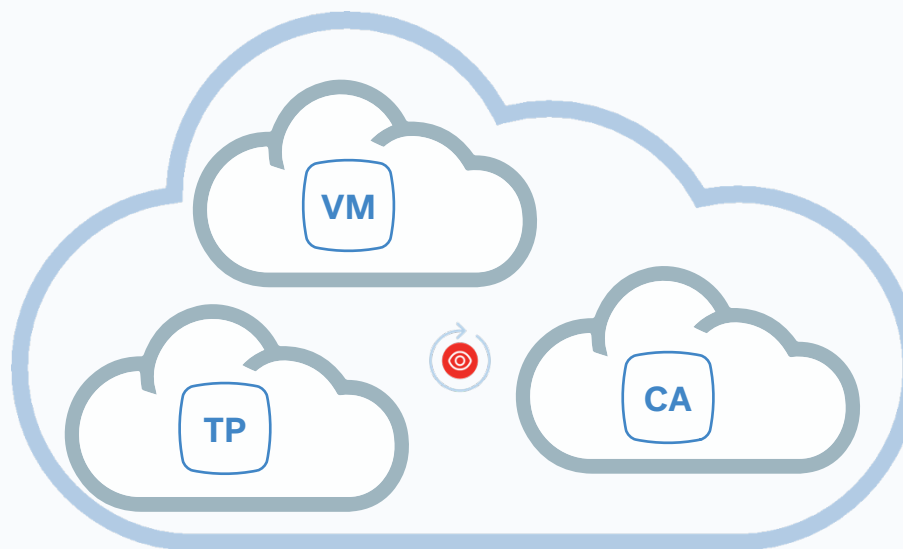
Prioritizes vulnerability workflow.



We need to think about...



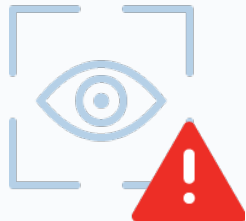
Threats and
Vulnerabilities



Visibility with Technology

Situation Vulnerabilities/ Remediation

Information Overload



1. 19,299 vulnerabilities on 698 servers (2015)
2. Average Resolution 44.2 days
3. High numbers
4. Overwhelmed Staff
5. VM became a low priority
6. Can we be more proactive?

Objectives



Discover and Prioritize by Criticality



Effective Vulnerability Management Assesses the Risk



Verified and Reliable Data



Timely and Actionable

Technology

Cloud Agent & Threat Protect

Qualys Cloud Agent

Produces real-time data that is more reliable than traditional scanning.

More visibility into systems for troubleshooting, services running, user accounts, open ports, software and version number



Cloud Agent



Continuous Visibility and Real-Time Vulnerability Management:

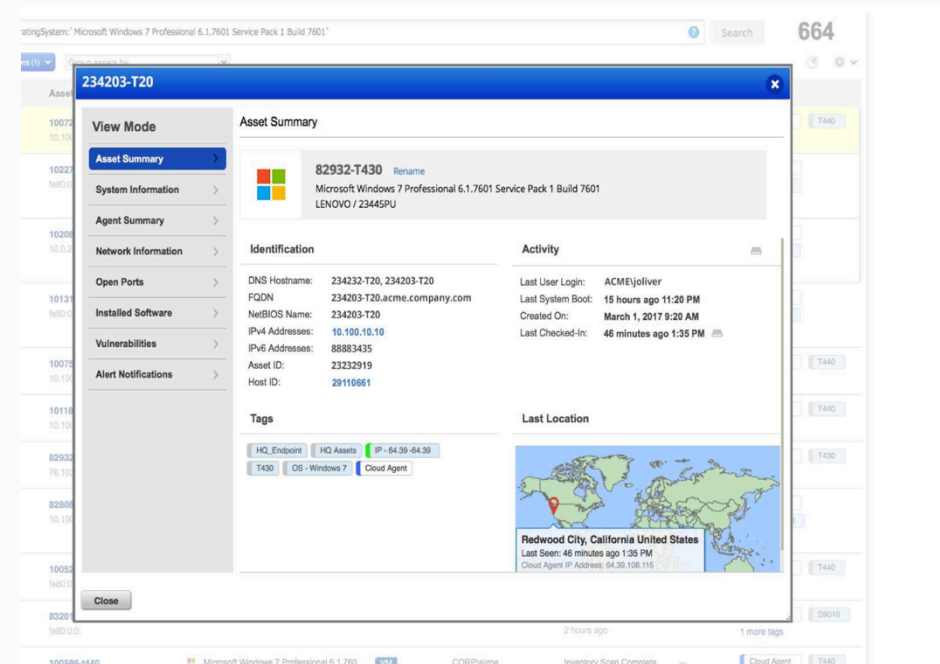
Continuous Data Collection

Eliminates scanning windows

Real-time tracking

No credentials to manage

Visibility of Operating System, Applications and Certificate.



Qualys Threat Protect

Real-Time Indicators (RTI's) are data points collected per vulnerability.

It is accurate, timely and actionable information to help prioritize and shrink the flood of Vulnerabilities reported



Threat Protect

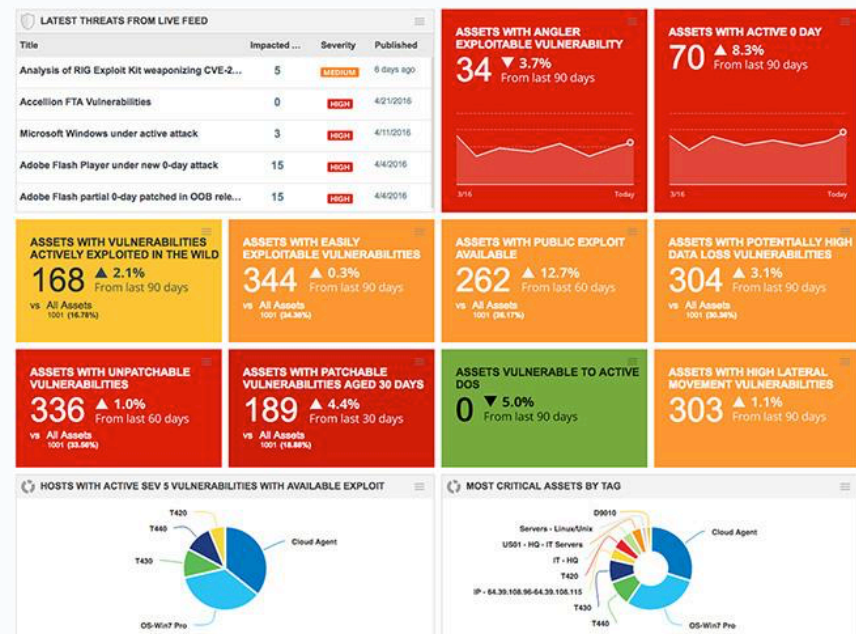
Identify & Weigh Characteristics that Intensify a Vulnerabilities Danger:

Vulnerabilities that are not very critical can be dealt with in due course.

Know the assets with the most risk.

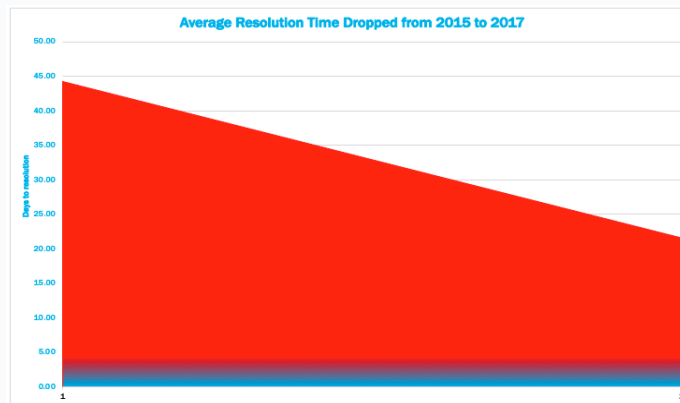
Prioritize based on criticality.

Understand the associations across vulnerabilities to know the impact of a threat.



Results Vulnerabilities/ Remediation

Intelligence Leveraged



1. 21,409 vulnerabilities on 775 servers (2017).
2. Average Resolution 21.5 days.
3. Higher numbers than 2015.
4. Removal of Secondary Scanner Appliance (Nessus).
5. Priorities defined by risk.
6. Transitioned from reactive to proactive!

Actionable Vulnerability Information

The screenshot shows the Qualys ThreatPROTECT interface. At the top, there's a navigation bar with 'Dashboard', 'Feed', and 'Assets'. Below this, the 'Live Feed' section is active, displaying a list of vulnerability alerts. The alerts are categorized by severity: HIGH, MEDIUM, and LOW. Each alert includes a title, a brief description, and the number of impacted assets. For example, one alert for 'Doublepulsar backdoor spreading rapidly in the wild' shows 42 impacted assets. Another for 'PoC Exploit available for CVE-2017-0202' shows 172 impacted assets. The interface also includes search bars and filters for 'High Rated Feed' and 'Medium / Low Rated Feed'.

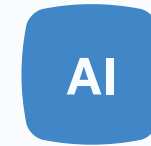
This screenshot displays two sections of the Qualys ThreatPROTECT interface. The left section, 'Asset Summary', lists various system information categories like System Information, Agent Summary, Network Information, Open Ports, Installed Software, Vulnerabilities, and Alert Notifications. The right section, 'Total Vulnerabilities by RTIs', shows a donut chart and a table of vulnerability counts. The table includes categories like 'Zero Day', 'Easily Exploitable', 'Unpatchable', 'Active Attacks', 'Exploit Kit Available', 'High Lateral Movement', 'High Data Loss', 'Vulnerable to DOS', 'Malware', and 'Public Exploit'. Below this, the 'LATEST THREATS FROM LIVE FEED' section lists recent threats with their titles, severity levels, and publication dates. For instance, 'PoC Exploit available for CVE-2017-8541' is listed with a MEDIUM severity and a publication date of 5/29/2017.

Title	Severity	Published
PoC Exploit available for CVE-2017-8541	MEDIUM	5/29/2017
PoC Exploit available for CVE-2017-8540	MEDIUM	5/29/2017
PoC Exploit available for CVE-2017-8538	MEDIUM	5/28/2017
PoC Exploit available for CVE-2017-8535	MEDIUM	5/28/2017
PoC Exploit available for CVE-2017-8536	MEDIUM	5/28/2017
PoC Exploit available for CVE-2017-8537	MEDIUM	5/28/2017
Intel Active Management Technology (AMT) Privilege Escalation Vulnerability	HIGH	5/10/2017
CVE-2017-5689: Intel Elevation Of Privilege Vulnerability	HIGH	5/8/2017
PoC Exploit available for CVE-2017-0290	MEDIUM	5/8/2017

Qualys Asset Inventory

Accurate server inventory with detailed and continuous hardware and software visibility.

Timely and actionable information to help prioritize decision making regarding EOL software and hardware.



Asset Inventory



Enable Efficiency Across IT and Security with Up to Date Continuous Visibility

Replaces manual procurement collection efforts.

Identify and know the assets on your network by functional category.

Prioritize replacing EOL hardware and software licensing with easy and efficient decision making.

Beta testing at Montana State University by Technical Leads in Distributed IT Units.

Could this improve the existing Server Inventory?

Tester Comment: *"I think it goes without saying this would be a huge improvement. The current Server Inventory is not easy to use and it's function is generally a mystery to end users."*



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Thank You

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